



alomone labs

Molecular Tools for the Neuroscience Community

DATA SHEETS

Certificate of Analysis

Headquarters: Alomone Labs Ltd. Har Hotzvim Hi-Tech Park P.O. Box 4287, Jerusalem 91042, Israel.

Tel: +972-2-587 2202 Fax: +972-2-587 1101 or +972-2-642 6975 email: alomone@netvision.net.il <http://www.alomone.com>

PRODUCT # C-650

LOT # CD-02

CERTIFICATE OF ANALYSIS

Calcicludine

(Dendroaspis angusticeps)

M.W.: 6979 daltons.¹

Sequence: WQPPW YCKEP VRIGS CKKQF SSFYF KWTAK KCLPF LFSGC GGNAN RFQTI
GECRK KCLGK

Purity: > 98% by HPLC.

Solubility: Any aqueous buffer.

Preparation:

Calcicludine is isolated from *Dendroaspis angusticeps* snake venom, by modification of the procedure of Schweitz¹ and purified to homogeneity.

Reconstitution:

The peptide concentration and identification were determined by amino acid analysis. Each vial contains 70 µg of unbuffered protein. Dissolving of 70 µg in 10ml of any conventional buffer gives a stock solution of 1µM.

Before dissolving the toxin, the tube should first be centrifuged, to concentrate the lyophilized toxin in the bottom of the tube. After centrifuging, the toxin must be dissolved into a stock solution using distilled water, or an appropriate buffer (see below), to a concentration of 10⁻⁵-10⁻⁶M. After preparing the stock solution, it should be divided into aliquots and can be stored this way for up to three months at -20°C.

Storage and Stability:

Lyophilized form: 2-3 weeks at room temperature.
One year at -20° C.

Liquid form: Up to two weeks at 4° C.
Three months at -20° C.

Known action:

Calcicludine was shown to be a specific neuronal L-type Ca_v channel blocker¹. It blocks Ca_v1.2 cloned channels with IC₅₀ of 88 nM and had very little effect on Ca_v2 family channels². In addition the block was irreversible upon wash and never complete but reached a maximum of 58%.



alomone labs

Molecular Tools for the Neuroscience Community

DATA SHEETS

Certificate of Analysis

Headquarters: Alomone Labs Ltd. Har Hotzvim Hi-Tech Park P.O. Box 4287, Jerusalem 91042, Israel.

Tel: +972-2-587 2202 Fax: +972-2-587 1101 or +972-2-642 6975 email: alomone@netvision.net.il <http://www.alomone.com>

Bioassay:

The activity of this lot was tested to confirm its ability to block spontaneous or K⁺-induced contraction of cardiac cells¹. And with the use of patch clamp it was shown to block L-type currents in neuronal cells.

Reference:

1. Schweitz, H. *et al.* (1994) *P.N.A.S.* **91**, 878.
2. Stotz, S. C. *et al.* (2000) *J. Membr. Biol.* **174(2)**, 157.